

1 **WHAT IS CLAIMED IS:**

2 1. A microwave power amplifier, comprising:

3 a drive amplifying stage (200) including

4 1) a first power device (213),

5 2) a first RC parallel circuit (217) connected between an input
6 port and a gate of said power device,

7 3) a first shunt resistor (218) connected between a ground and
8 said gate of said first power devices, and

9 4) a negative feedback circuit (207) connected in parallel with
10 said first power device;

11 b) an interstage matching circuit (208) connected in series with said
12 drive amplifying stage; and

13 c) a power amplifying stage (280) including

14 1) a second power device (215) and a third power device (216)
15 connected in parallel with each other and to a power divider (211) and a
16 power combiner (212),

17 2) a second RC parallel circuit (221) connected between said
18 second and third power devices and said interstage matching circuit, and

19 3) a second shunt resistor (222) connected between said ground
20 and said second and third power devices.

21

22 2. The microwave power amplifier as claimed in claim 1, wherein said power
23 devices are HEMTs.

24

1 3. The microwave power amplifier as claimed in claim 1, wherein said inter-
2 stage matching circuit utilizes micro-strip lines and open stubs.

3

4 4. The microwave power amplifier as claimed in claim 1, wherein said first
5 and second shunt resistors comprise a resistor having micro-strip lines
6 connected to both ends thereof.

7

8 5. The microwave power amplifier as claimed in claim 1, wherein said
9 microwave power amplifier further comprises a second drive amplifying stage
10 and a second interstage matching circuit, disposed between said interstage
11 matching circuit and said power amplifying stage.